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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/992,445 | 11/16/2001 | Rodney L. Porter | 210105US | 6092 |
| 37814 | 7590 | 06/28/2004 | EXAMINER | |
| CHEVRON PHILLIPS CHEMICAL COMPANY 5700 GRANITE PARKWAY, SUITE 330 PLANO, TX 75024-6616 | | | ARNOLD JR, JAMES | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1764 | |

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

(Supplemental)
Notice of Allowability

Application No.

09/992,445

Examiner

James Arnold, Jr.

Applicant(s)

PORTER ET AL.

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 25 November 2003.
2. ☒ The allowed claim(s) is/are 1-75.
3. ☒ The drawings filed on 25 November 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

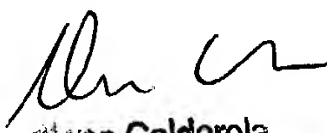
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700

DETAILED ACTION**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Rodney Carroll on June 22, 2004.

The application has been amended as follows:

AMENDMENTS TO THE SPECIFICATION

On page 12 of the specification, immediately prior to the DETAILED DESCRIPTION OF THE INVENTION, please insert the following:

BRIEF DESCRIPTION OF THE DRAWINGS

- FIG 1. A diagram showing an embodiment of the process to produce dilute propylene and dilute ethylene.
- FIG 2. A diagram showing the preferred method of producing cracked gas feed.
- FIG 3. A diagram showing another embodiment of the process to produce dilute propylene and dilute ethylene with a second compression zone.
- FIG 4. A diagram showing another embodiment of the process to produce dilute ethylene and dilute propylene with a hydrogenation zone before the deethanizer zone.
- FIG 5. A diagram for a process to produce dilute ethylene.
- FIG 6. A diagram for a process to produce dilute ethylene with a second compression zone.
- FIG 7. A diagram for a process to produce dilute ethylene with a hydrogenation zone before the deethanizer zone.

Allowable Subject Matter

Claims 1-75 are allowed. The following is an examiner's statement of reasons for allowance: The prior art of record does not disclose a process for producing both a dilute propylene stream and a dilute ethylene stream from a cracked gas stream wherein the process comprises the following steps in the order named: separating said cracked gas stream in a deethanizer zone to produce a C2- stream and a C3+ stream; hydrogenating said C2- stream in a hydrogenation zone to remove a portion of acetylene to produce said dilute ethylene stream; separating said C3+ stream in a depropanizer zone to produce a C3- stream and a C4+ stream; and reacting said C3- stream in a MAPD reactor zone to convert a portion of methylacetylene and propadiene to propylene and propane to produce a dilute propylene stream.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Arnold, Jr. whose telephone number is 571-272-1443. The examiner can normally be reached on Monday-Thursday 8:30 AM-6:00 PM; Fridays from 8:30 AM-5:00 PM with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ja

June 22, 2004



Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700